

Work Order ID 64640

December 10, 2010 9:51:11 AM

Page 1

PRELIMINARY ISSUE

Item ID: D4298-010

Accept

Setup Start

Revision ID: PRELIM

Stop

Item Name: Fixing Bracket

Start Date: 12/10/10 Start Qty: 1.00

Cust Item ID:

Required Date: 12/13/10 Req'd Qty: 1.00

Customer:

Reference:

Run Start

Approvals: Process Plan: W Date: _____ Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4298	PAT A

100 0.00



HandThermo

Memo

0.00

Hand Finishing Thermoforming

I-Cut Sheet to required Blank size

x2.

Dh.
10/13/09

105 0.00



HandThermo

Dry material

Memo

0.00

Hand Finishing Thermoforming

Dry Sheet as per QSI022 KYDEX

Polycarbonate

Temp: 240°

Time IN: 6:30 PM 10/12/09

Time OUT: 7:00 am 10/12/10

(x2)

Dh.
10/12/10

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Item ID: D4298-010

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Setup Start



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Stop



Item Name: Fixing Bracket

Start Date: 12/10/10 Start Qty: 1.00



Cust Item ID:

Required Date: 12/13/10 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110 Thermoform Thermoforming Machine	Memo 1-Machine Set-Up 2-Pre-heat Tool to required temp. 3-Thermoform as per Dwg and Folio #FTA094 using tool DTXXXX Dwg Rev: <u>A</u> Folio Rev: <u>A</u>	0.00 0.00				<u>22</u>			<u>DL</u> <u>10/12/10</u>
120 QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo Visually inspect part for proper formation and texture	0.00 0.00				<u>22</u>			<u>DL</u> <u>10/12/10</u>
130 QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00				<u>2</u>			<u>B</u> <u>10-12-10</u>

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Item ID: D4298-010

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Fixing Bracket

Start Date: 12/10/10 Start Qty: 1.00



Cust Item ID:

Required Date: 12/13/10 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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140

0.00



HandThermo

Memo

0.00

Hand Finishing Thermoforming

1-Trim to finished dimensions as per Dwg

x2

Dh
10/12/10

150

0.00



QC

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

Quality Control

Complete FAI document

x2

Dh
10/12/14

160

0.00



QC

QC5- Inspect part completeness to step on W/O

Memo

0.00

Quality Control

2






10/12-14



Work Order ID 64640



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Item ID: D4298-010 Accept  Setup Start 
Revision ID: PRELIM Stop 
Item Name: Fixing Bracket
Start Date: 12/10/10 Start Qty: 1.00  Cust Item ID:
Required Date: 12/13/10 Req'd Qty: 1.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170  Packaging Packaging	Identify as per dwg & Stock Location: _____ Memo <i>prel.</i>	0.00 0.00		<i>LE</i>	<i>10.12.14</i>				
180  QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							

POSITIVE RECALL
EFFECTIVE *10.24.10* AUTH *[Signature]*
RELEASED *10.27.10* DATE *10.27.10*
POSITIVE RECALL
EFFECTIVE *10.27.10* AUTH *[Signature]*
RELEASED *10.27.10* DATE *10.27.10*

Picklist Print

Page 1

December 10, 2010 9:51:09 AM

Work Order ID: 64640



Parent Item: D4298-010



Parent Item Name: Fixing Bracket


Start Date: 12/10/10

Required Date: 12/13/10

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev. A New Issue 10/12/09 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.125 - 9034-01  1/8" Lexan Sheet		Purchased	No			100	sf	0.0000	1.67	1.678392			

M106403



DL
10/12/09

DART AEROSPACE LTD	Work Order: 64640
Description:	Part Number: D4298-010
Inspection Dwg: D4298 Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than "	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: <i>Ph.</i>	Date: 10/12/10
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TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.28"		2.31"				
1.90"		1.80"				1.78" JH-03
4.88"		5.0"				5.08" JH-03
2.22"		2.23"				
4.50"		4.56"				
1.48"		1.58"				
SEE ATTACHED FAT FOR retrimming						

Measured by: <i>Ph.</i>	Date: 10/12/10
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Audited by:	Date:
--------------------	--------------

Preliminary Approval:	Date:
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Rev	Date	Change	Revised by	Approved
B	10.04.14	Added preliminary approval	KJ	

10-04-14

DART AEROSPACE LTD	Work Order: 64640
Description:	Part Number: D4298-010
Inspection Dwg: D4298-010 Rev: A.	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than "	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: Dh. **Date:** 10/12/14

TRIMMING SECTION

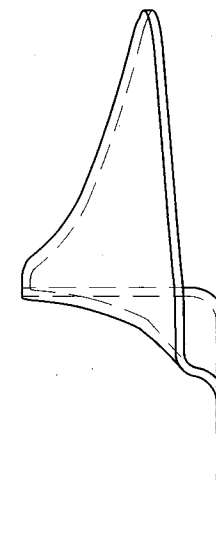
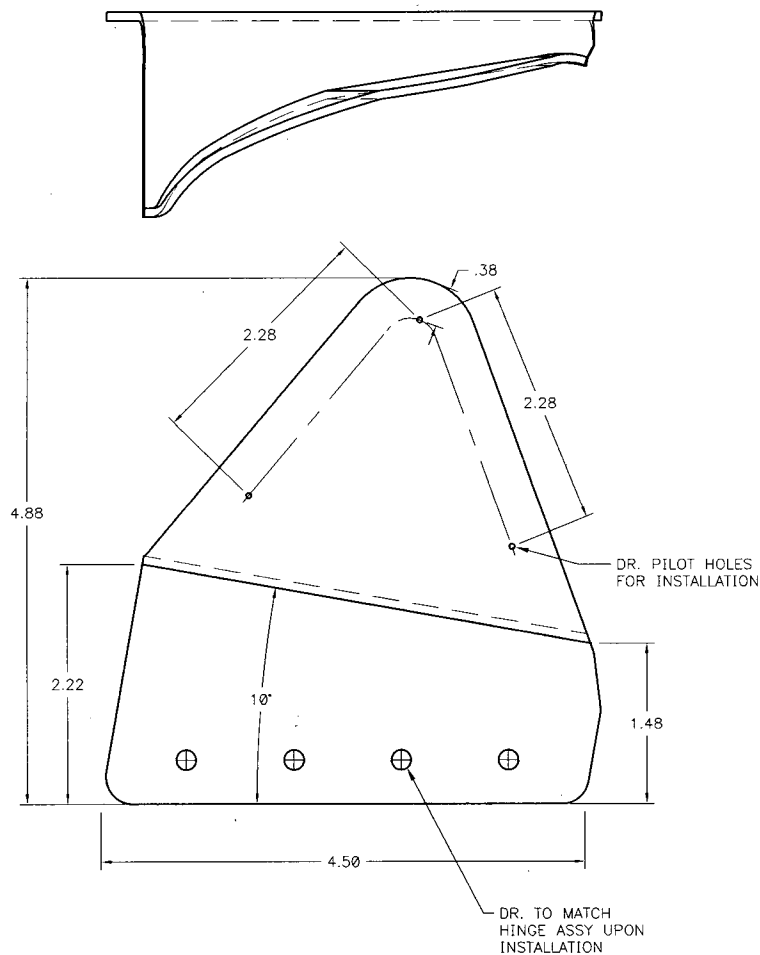
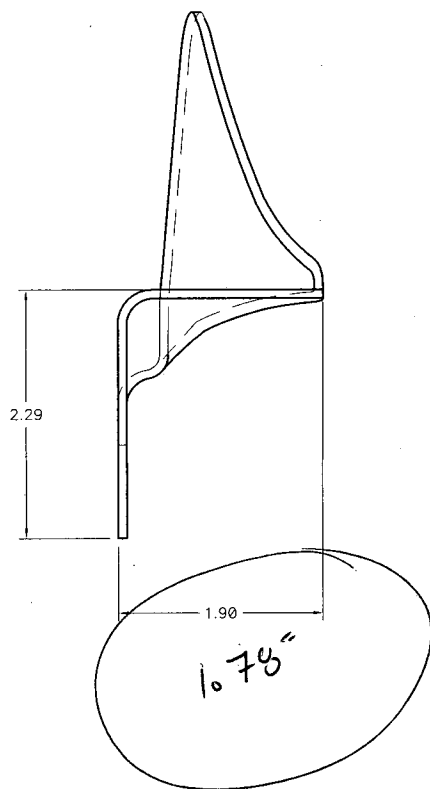
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.22"		2.204"	✓			
1.40"		1.78"	✓			
4.88"		4.82"	✓			
4.50"		4.51"	✓			
1.48"		1.477"	✓			

Measured by: Dh. **Date:** 10/12/14
Audited by: J. **Date:** 10-12-14
Preliminary Approval: **Date:**

Rev	Date	Change	Revised by	Approved
B	10.04.14	Added preliminary approval	KJ	

Part was trimmed too large.
so it was re-trimmed and new FAI.

10-04-14



See Rev A

-010 FIXING BRACKET

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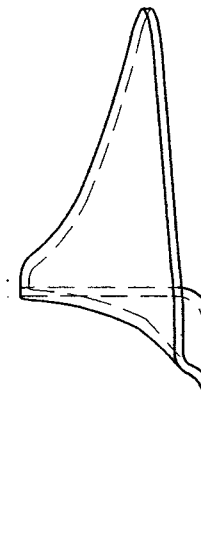
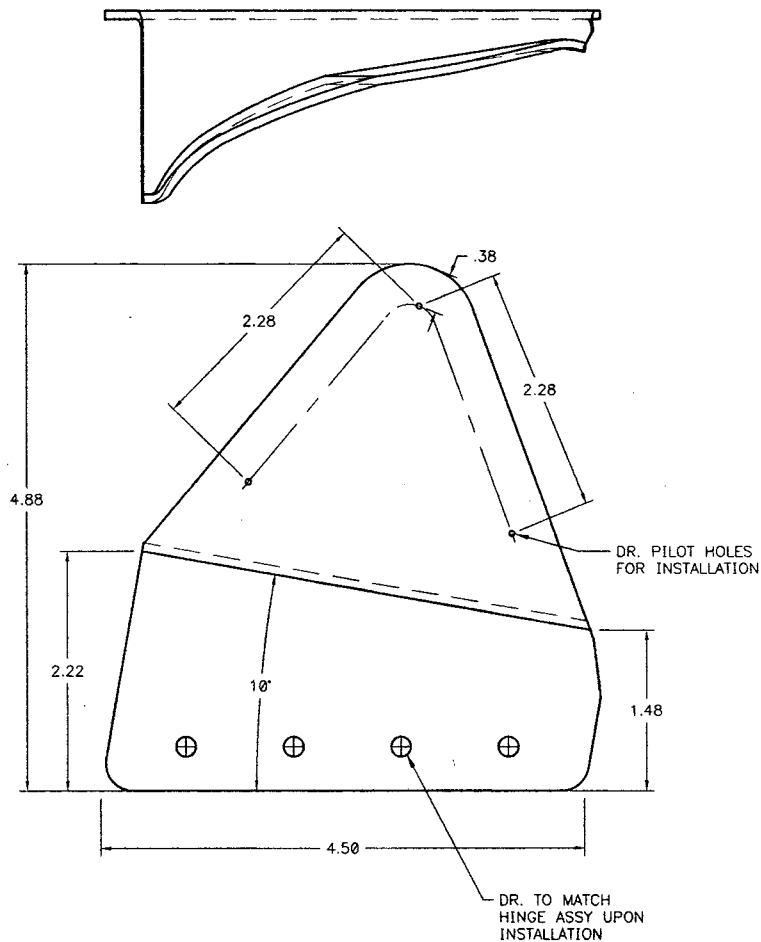
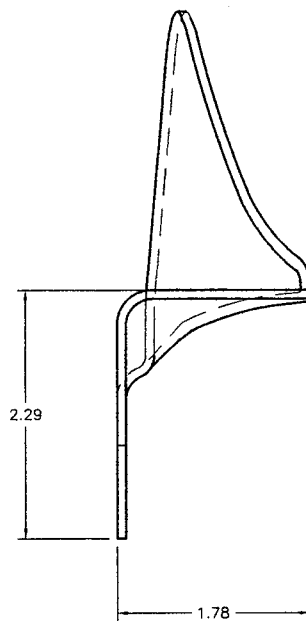
Era Helicopters LLC

TITLE	SIZE	DWG. NO.	REV.
SINGLE PILOT VFR CHART HOLDER, AW139	C	13939-1-290 SHT 6 OF 10	A

DART P/N	ERA P/N	Description
D4298-001	13939-1-290-001	CHART HOLDER ASSY
D4298-002	13939-1-290-002	PLATE SUB-ASSY
D4298-003	13939-1-290-003	PLATE SUB-ASSY
D4298-004	13939-1-290-004	FIXING BRACKET SUB-ASSY
D4298-005	13939-1-290-005	HINGE SUB-ASSY
D4298-006	13939-1-290-006	MACHINED INNER SUB-ASSY
D4298-007	13939-1-290-007	MACHINED OUTER SUB-ASSY
D4298-008	13939-1-290-008	PLATE
D4298-009	13939-1-290-009	PLATE
D4298-010	13939-1-290-010	FIXING BRACKET
D4298-011	13939-1-290-011	HINGE
D4298-012	13939-1-290-012	HINGE
D4298-013	13939-1-290-013	HINGE
D4298-014	13939-1-290-014	HINGE
D4298-015	13939-1-290-015	CLIP ANGLE
D4298-016	13939-1-290-016	CLIP STOP
D4298-017	13939-1-290-017	CLIP STOP MOUNT
D4298-018	13939-1-290-018	MACHINED INNER
D4298-019	13939-1-290-019	MACHINED OUTER
D4298-020	13939-1-290-020	KNOB
D4298-021	13939-1-290-021	MACHINE BOLT
D4298-022	13939-1-290-022	PIN TOPPER
D4298-023	13939-1-290-023	PIN
D4298-024	13939-1-290-024	SERRATED ADJUSTMENT WASHER

RELEASED
2010-12-15
W

A	NEW ISSUE	SC	10.12.15
REV.	DESCRIPTION	BY	DATE
DESIGN	SC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED	<i>W</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>W</i>	D4298	SHEET 1 OF 1
APPROVED	<i>W</i>	TITLE	SCALE
DE APPR.	<i>W</i>	CHART HOLDER (AW 139)	NTS
DATE	10.12.15	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	



-010 FIXING BRACKET

w/064640

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Era Helicopters LLC

TITLE	SIZE	DWG. NO.	REV.
SINGLE PILOT VFR CHART HOLDER, AW139	C	13939-1-290 SHT 6 OF 10	D

Eric Charbonneau

From: Domingue, Elvin [edomingue@erahelicopters.com]
Sent: December 13, 2010 10:46 AM
To: Nelson, David; 'echarbonneau@dartaero.com'
Subject: Re: -010/-015 (AW139 Chart Holder)

We should be ok with this.

Elvin Domingue
Sent from my BlackBerry Wireless Device

From: Nelson, David
To: 'Eric Charbonneau' <echarbonneau@dartaero.com>
Cc: Domingue, Elvin
Sent: Mon Dec 13 09:42:13 2010
Subject: FW: -010/-015 (AW139 Chart Holder)
Eric,

I'm forwarding to Elvin for the decision on these matters.

For the -010, this would make the chart holder about 1/8" closer to the instrument panel, but shouldn't affect its operation. If it does, perhaps we could add an 1/8" shim.

For the -015, I spoke with our machinist and he said 6063-T5 is okay to substitute.

Thanks,
David

From: Eric Charbonneau [<mailto:echarbonneau@dartaero.com>]
Sent: Monday, December 13, 2010 8:04 AM
To: Nelson, David
Subject: -010/-015

Hi David, couple of things here, on 13939-1-290-010 there's one dimension that we could not achieve, I attached a copy of the dwg with the non-conforming dimension please let me know if this will be acceptable, also for the -015 we did not have any 6061-T6... we have 6063-T5, would this mat'l be acceptable for the first unit.

Regards,

ERIC CHARBONNEAU
Production Engineering Coordinator

DART
aerospace

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